

Exhibit C

HIGHLY CONFIDENTIAL – SUBJECT TO PROTECTIVE ORDER

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION**

United States of America, *et al.*,

Plaintiffs,

v

Google LLC,

Defendant.

**Case No. 1:23-cv-00108
HON. LEONIE H. M. BRINKEMA**

EXPERT REBUTTAL REPORT OF
WAYNE D. HOYER, PH.D.

FEBRUARY 13, 2023

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12. My findings are based on information available to me at the time this report was prepared. A list of documents I relied upon is listed in Appendix C. I reserve the right to supplement my opinions and conclusions should data, documents, testimony, or other materials become available after filing this report.
13. I am being compensated \$850 per hour for my time in this matter. Part of the work in this matter was conducted under my direction by employees of The Brattle Group, an economic consulting firm. My compensation is not contingent on the nature of my findings, opinions, or conclusions, or on the outcome of this case.

I.C. Summary of Opinions

14. Upon reviewing Prof. Simonson's report and surveys, I have concluded that the surveys conducted by Prof. Simonson contain serious flaws that make the survey results unreliable. In particular:

- a. [REDACTED]
- i. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
ii. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
ii. [REDACTED] Rather,
what is relevant is the portion of those costs that corresponds to specific ad tech tools that
advertisers use to transact programmatic display advertising. Because the cost of a
particular ad buying tool comprises only one part of the total cost of programmatic
display advertising, a “small but significant” increase in the cost of a particular ad buying
tool would result in a much smaller increase than a small but significant increase in the
“cost of programmatic display advertising.” [REDACTED]

f. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

III.B. Professor Simonson's Key Survey Questions in His Main Questionnaires Are Likely to Result in Speculative and Unreliable Responses

71. In designing a survey that can provide meaningful results, it is necessary for the questions to be clear and understood by respondents as intended. Several academic studies on survey design, including one that Prof. Simonson himself references, emphasize the need for survey questions to be clear and easily understood by respondents:

Ambiguity should be avoided at all costs. If a question is ambiguous, the respondent may be presented with the dilemma of hearing or seeing two different questions and will not know which to answer....With self-administered questionnaires, respondents have to make their own decision as to what the question means. Either way, the researcher does not know which way the respondent has understood the question....¹²²

When unclear questions are included in a survey, they may threaten the validity of the survey by systematically distorting responses if respondents are misled in a particular direction, or by inflating random error if respondents guess because they do not understand the question. If the crucial question is

¹²² Ian Brace, *Questionnaire Design How to Plan, Structure, and Write Survey Material for Effective Market Research* 4th ed., (London: KoganPage, 2018): 161.

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sufficiently ambiguous or unclear, it may be the basis for rejecting the survey.¹²³

The precise wording of questions plays a vital role in determining the answers given by respondents...[and]...[l]oaded words [p]roduce [l]oaded [r]esults...[and therefore]...a questionnaire writer can consciously or unconsciously word a question to obtain a desired answer.¹²⁴

72. Ignoring the above best practices, Prof. Simonson's surveys include questions that are unclear.
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¹²³ Shari Seidman Diamond, “Reference Guide on Survey Research,” in *Reference Manual on Scientific Evidence*, 3rd ed. (Washington, DC: The National Academies Press, 2011), 359–423, at 388. See also, Floyd Jackson Fowler, Jr., “How Unclear Terms Affect Survey Data,” *The Public Opinion Quarterly* 56, (1992): 218–231.

¹²⁴ Norman M. Bradburn, Seymour Sudman, and Brian Wansink, *Asking Questions: The Definitive Guide to Questionnaire Design—For Market Research, Political Polls, and Social and Health Questionnaires*, Revised Ed. (San Francisco: Jossey-Bass, 2004): 3, 5.



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105. I understand that with regard to advertisers, the relevant issue in this matter is the extent to which, and why, advertisers multi-home across different types of display *ad buying tools* and not across different types of *digital advertising* generally.¹⁹³ [REDACTED]
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¹⁹³ Lee Initial Report, Section III.C., ¶ 185 (“Publishers and advertisers may use multiple ad tech products for a given purpose. For example, an advertiser may choose to use multiple DSPs, and a publisher may similarly elect to sell its remnant display inventory through multiple exchanges. In economics, this type of behavior is referred to as ‘multihoming.’”); Section IV., ¶ 245 (“Note that the relevant product markets do not contain the underlying display advertisements themselves, but rather the ad tech products used to serve and transact these ads.”); Section IV.B., ¶ 262 (“Establishing the importance of open-web display advertising compared to other forms of advertising supports each of the relevant product markets that I discuss in Sections IV.C–IV.E below. This is because if open-web display advertising is distinct and valuable for open-web publishers and advertisers, then these customers would have limited ability to substitute away from *products used to transact such advertising* if those products were priced higher than competitive levels.”) (emphasis in original).

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

109. [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] Moreover, I understand that that ultimately
advertisers bear approximately 20 percent of an increase in Google's fee²⁰²—the remainder being

²⁰⁰ See Lee Initial Report, Section IV.B., ¶ 262 (“Establishing the importance of open-web display advertising compared to other forms of advertising supports each of the relevant product markets that I discuss in Sections IV.C–IV.E below. This is because if open-web display advertising is distinct and valuable for open-web publishers and advertisers, then these customers would have limited ability to substitute away from *products used to transact such advertising* if those products were priced higher than competitive levels.”) (emphasis in original); See also, Expert Rebuttal Report of Robin S. Lee, Ph.D., United States of America, et al., v. Google LLC, Civil Action No. 1:23-cv-0108, February 13, 2024, Section IV.B.

²⁰² Simcoe Initial Report, Section I.C., ¶ 12.

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Term	Percentage (%)
Climate change	95
Global warming	92
Green energy	88
Sustainable development	85
Carbon footprint	82
Environmental pollution	78
Recycling	75
Organic food	72

Wye & Co

Wayne D. Hoyer, Ph.D.

Date: February 13, 2024

